Sinclair Printing Co.
4005 Whiteside St.
Los Angeles, CA 90063
ID: 35482

EQUIPMENT DESCRIPTION

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
Process 1: LITHOGRAPHIC PRINTING					
PRINTING PRESS, LITHOGRAPHIC, KOMORI, MODEL NO. LITHRONE 640C, SERIAL NO. 379, SIX COLORS, ONE COATER, 40-INCH SHEET WIDTH A/N: 475777	D28			VOC: (9) [RULE 1130, RULE 1171]	B59.5 B59.6 H23.1 K67.2 M333.2
OVEN, I.R. CURING, 60 KW A/N: 475777	D29			PM: (9) [RULE 404]	

A/N 475776: Title V facility permit revision

BACKGROUND

Sinclair Printing Co. submitted application no. 475777 to permit a new lithographic printing press and oven. It serves as a functionally identical replacement to the lithographic printing press and oven permitted under device nos. D1 and D2 (application no. 333571). The old press developed a significant oil leak which was unrepairable and therefore needs to be replaced. The new press will operate under Sinclair Printing's existing facility-wide VOC emission cap of 6,900 lb/mon. Sinclair Printing is currently operating at 2,000 lb/mon.

Sinclair Printing Co. is a Title V facility. A Title V renewal permit was issued to this facility on April 28, 2005. Sinclair Printing Co. has proposed to revise their Title V renewal permit, under application no. 475776, by adding a printing press and oven (device nos. D28 and D29) to replace an existing printing press and oven (device nos. D1 and D2). This permit revision is considered as a "minor permit revision" to the Title V renewal permit, as described in the Regulation XXX evaluation.

PROCESS DESCRIPTION

Sinclair Printing Co. is a commercial lithographic printing facility. They print a variety of products including publications, reports, inserts, magazines, brochures and calendars. They

operate two heat-set litho presses, three IR-cured litho presses and two air-dried litho presses. They also operate a regenerative thermal oxidizer which controls VOC emissions from the two heat-set presses. No citizen complaints, Notices to Comply or Notices of Violations have been issued to this facility in the last two years. Sinclair Printing Co. operates 24 hr/day, 5-7 day/wk and 52 wk/yr.

EMISSION ESTIMATES

The proposed printing press and oven will be used to replace the existing press and oven and will operate under the existing facility-wide VOC emission limit of 6,900 lb/mon. No increase in VOC emissions is expected. The following emission estimates are performed only for informational purposes.

Sinclair Printing Co. will use a variety of materials in the new press. All materials are compliant with Rules 1130 and 1171. The VOC emissions from the use of all materials from the proposed press and oven are estimated to be 30 lb/day. The materials are tabulated as follows:

Material	Density (lb/gal)	VOC Content (lb/gal)	Rule Limit (lb/gal)	Max Usage (gal/day)	Max Emissions (lb/day)
ISI inks	8.59	2.11	2.5 (Rule 1130)	58.2	6.1*
ISI varnish	8.17	1.72	2.5 (Rule 1130)	5.7	0.5*
PS ink-o-saver	6.89	4.76	**	0.2	0.9
PS Q3508C coating	8.76	0.19	2.5 (Rule 1130)	50	9.5
PS 170-46 ftn. solution	8.62	5.31	-	1.56	8.3
Alfa 8 press wash	8.6	0.8	4.2 (Rule 1171)	5	4
Baldwin impact rolls	7.68	0.077	4.2 (Rule 1171)	0.25	0.02
MRC-85	6.6	0.7	4.2 (Rule 1171)	0.5	0.3
Total					**29.6**

*Ink adsorption 95%

**Mixed with inks, overall VOC of inks below limit

Fountain solution mixture VOC lb/gal as applied = 0.385
Fountain solution mixture volume VOC % as applied = 4.31%
Composite Partial Pressures (mmHg):
Alfa 8 press wash = 0.5
Baldwin impact rolls = 0.01
MRC-85 = 1.95

Daily VOC emissions = 30 lb/day
Hourly VOC emissions = 30 ÷ 24 hr/day = 1.25 lb/hr

RISK ASSESSMENT

The proposed printing press and oven will be used to replace the existing press and oven without resulting in any increase in emissions. As a result, the proposed project is exempt from the risk assessment requirements pursuant to Rule 1401 (g)(1)(C). The following rsik assessment calculations are performed only for informational purposes.

Materials used in the printing presses contain a few Rule 1401 toxic air contaminants. The following table list those materials and corresponding TACs. Estimated emissions are based on the maximum amount of TAC in any material. Based on a VOC emission level of 30 lb/day for the proposed project, there will not be a cancer risk equal or greater than one in a million and there will not be a health hazard risk. All estimated emissions are below Tier 1 Screening Emission Levels at the closest receptor distance.

Material	TAC	Wt. Percent (%)	Max. Usage (gal/day)	Emissions (lb/day)	Emissions (lb/hr)	Emissions (lb/yr)
Q3508C coating	Ammonia*	1.5	50	6.57	0.27	2,398
Q3508C coating	IPA	2.5	50	10.95	0.45	3,997
PS 170-46 ftn. solution	Ethylene glycol monobutyl ether	50	1.56	6.73	0.28	2,456
PS 170-46 ftn. solution	Ethylene glycol	20	1.56	2.69	0.11	982
PS 170-46 ftn. solution	Ammonia**	0.5	1.56	0.06	0.003	22
MRC-85	IPA	5	0.5	0.16	0.007	58
MRC-85	Xylene	5	0.5	0.16	0.007	58
MRC-85	Ethyl benzene	2.5	0.5	0.08	0.003	29

*As part of ammonium hydroxide

**As part of ammonium nitrate

TAC	Max Emissions (lb/day)	Max Emissions (lb/hr)	Max Emissions (lb/yr)	Tier 1 Level (lb/yr)	Tier 1 Level (lb/hr)
Ammonia	6.63	0.27	2,420	6,610	1.6
IPA	11.11	0.46	4,055	231,000	1.6
EGME	6.73	0.28	2,456	-	7
Ethylene glycol	2.69	0.11	982	13,200	-
Xylene	0.16	0.007	58	23,100	11
Ethyl benzene	0.08	0.003	29	66,100	-

RULE ANALYSIS

RULE 212: Public notification is not required since the proposed project is a functional identical replacement of an existing lithographic printing press/oven and: (1) will not result in an emission increase greater than the thresholds of 212(g), (2) will not cause a cancer risk equal or greater than one in a million and (3) since the facility is not located within 1,000 feet of a school.

RULE 401: Visible emissions are not expected with the proper operation of this equipment.

RULE 402: Operation of this equipment is not expected to create a nuisance.

RULE 1130: The VOC content of the inks/coatings and fountain solution used in the press are less than 2.5 lb/gal, less water and exempt compounds and 80 grams/liter of material, respectively. Compliance is expected.

RULE 1171: The VOC content of the cleaners to be used in the press are less than the current limit of 4.2 lb/gal, as well as the 0.83 lb/gal limit effective 1/1/08. Compliance is expected.

REG. XIII
1303(a): BACT for lithographic printing presses is the use of fountain solutions that are 8% VOC by volume or less and blanket/roller washes that have a composite partial pressure of 10 mm Hg or less. Sinclair Printing Co. uses a fountain solution that meets both of these requirements. Compliance with applicable BACT requirements is achieved.

1303(b)(1): The proposed project is exempt from modeling since it is a functionally identical replacement.

1303(b)(2): The proposed project is exempt from offsets since it is a functionally identical replacement.

1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

RULE 1401: The proposed project is a functional identical replacement and therefore is exempt from the requirements of this rule pursuant to Rule 1401 (g)(1)(C). A few toxic air contaminant emissions will be emitted from the operation of the press. Expected emissions do not exceed Tier 1 Screening Emission Levels. There will not be a cancer risk equal or greater than one in a million or a health hazard risk from operating the press as intended. Compliance is expected.

REGULATION XXX:

The proposed project is considered as a "minor permit revision" pursuant to Rule 3000(b)(12)(A)(vi) since the proposed project does not result in an increase in emissions of a pollutant subject to Regulation XIII - New Source Review or a hazardous air pollutant.

Rule 3003(j) specifies that all proposed Title V permit revisions shall be submitted to EPA for review. This is the fourth permit revision requested by the facility. The cumulative emission increases resulting from all permit revisions are summarized as follows:

Revision	HAP	VOC	NOx	PM_{10}	SOx	CO
4th Permit Revision, add Device nos. D28 and D29	0	0	0	0	0	0
Cumulative Total	0	0	0	0	0	0
Maximum Daily	30	30	40	30	60	220

PERMIT SHIELD EVALUATION

A permit shield from Rule 1128 was previously approved for the existing press (see condition no. M333.2). The new press will also have the same shield since the same shield requirements applies to the new press.

RECOMMENDATION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "minor permit revision", it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility.